

of the preceding year. At St. Joseph, Mo., visibility was reduced to one-fifth mile on the 23d; and on the following day similar conditions prevailed at Memphis, Tenn. At Davenport, Iowa, on the 24th visibility was reduced to 200 yards.

The Southwest remained dry as the month ended, with severe and extensive duststorms reported during the closing week, and in the Pacific Northwest storms blew out some spring-seeded wheat on light lands. As far east as Portland, Maine, dust from the western area was noted on several days; and on the 9th and 11th, a yellowish tinge to snow was noted generally over New England.

The *Weekly Weather and Crop Bulletin* for the week ending March 17, 1936, contains a chart showing the per-

centage of normal precipitation for the 18-month period, September 1934 to February 1936, inclusive, and also an article on the causes of duststorms. The migration of duststorm sources, as precipitation totals vary from normal, is of great interest.

Some of the Colorado duststorms of March are described by Choun¹ as the most severe and prolonged of record in that State. Visibility was often reduced to less than 10 feet, with consequent interference to traffic of all kinds; and sand, carried by winds of near-gale force, removed paint from automobiles, and pitted windshields, on the highway south of Pueblo.

¹ H. F. Choun, Climatological Data: Colorado Section, March 1936.

BIBLIOGRAPHY

C. FITZHUGH TALMAN, *in Charge of Library*

RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

Abbot, Charles Greeley.

Mount St. Katherine, an excellent solar-radiation station (with two plates). Wash., D. C. 1935. 11 p. 2 pl., fold. diagr. 24½ cm. (Smithsonian miscellaneous collections. v. 94, no. 12). Publication 3342.

— Solar radiation and weather studies. Wash., D. C. 1935. 89 p. illus., 3 pl., diagrs. (2 fold.) 24 cm. (Smithsonian miscellaneous collections. v. 94, no. 10). Publication 3339. At head of title: Roebling fund.

Allix, André.

À propos des inondations de mars 1930. Lyon. 1930. p. 117–168. pl., maps, diagrs., tables. 24½ cm. (Extr.: Les études rhodaniennes. v. VI. 1930. no. 2. juin).

— & others.

À propos des brouillards lyonnais. Lyon. 1931–1933. p. 229–307; 1–8; 9–40; 133–144; 5–11; 81–84; 225–228; 229–246. tabs., diagrs. 24½ cm. (Les études rhodaniennes. Lyon. v. 7–9. 1931–1933.)

Bane, W. A.

Investigations of frost damage to horticultural crops with suggestions for future work. (In Great Brit. Min. of agric. & fish., & bd. of agric. for Scotland. Agric met. scheme. Rept. on agric. met. conference. 1935. p. 8–14.)

Barrows, Walter L.

Fulgorite from Raritan sands. N. Y. 1910. p. 294–319. map, tables. 24 cm. (Bibliography, p. 315–319.) (School of mines quarterly. Columbia univ. New York. v. 31, no. 4. July, 1910.)

Bauer, Wilhelm.

Untersuchungen von Niederschlagsanomalien auf Grund von 75-jährigen Niederschlagreihen acht deutscher Stationen. Ohlau i. Schl. 1933. 67 p. tables. 21 cm. (Inaug.-Diss.)

Belgium. Institut royal météorologique.

Bulletin climatologique mensuel. 1928–1932. Bruxelles. 36 cm. (Earlier issues published by Observatoire royal.)

Bergander, Wilhelm.

Niederschlag und Abfluss im Bartschgebiet. Breslau. 1933. 97 p. tables, diagrs. 23 cm. (Inaug.-Diss.) (Aus dem Geographischen Institut der Universität Breslau.)

Bertho, Jean.

Œuvres. Saint-Denis-Île de la Réunion. 1931. 182 p. pl., tab., & diagrs. (some fold.). 24 cm.

Birkeland, Bernt Johannes.

Ältere meteorologische Beobachtungen in Oslo (Kristiania); Luftdruck und Temperatur in 100 Jahren. Oslo. 1925. 56 p. incl. illus., tables, diagrs. 30½ cm. (Geofysiske publikationer vol. III. no. 9).

Blank-Weissberg, Stefan.

Le répartition des moyennes des températures extrêmes absolues annuelles de l'air sur le globe. Warszawa. 1934. p. 3–7; 52–54. Tables p. 1–24. 3 fold. maps in back. 24½ cm. (Soc. géoph. de Varsovie. Bull. fasc. 9–10. Warszawa. 1934.) [Title & text in Polish and French.]

Carvalho Andréa, Álvaro.

Alguns caracteristicos climatológicos de Portugal. n. p. 1934. 31 p. incl. 3 p. of figs. 27½ cm. (Comunicação apresentada ao Congresso Luso-Espanhol para o progresso das ciencias realizada em Santiago de Compostela.) (Multigraphed.)

Evans, John Corby.

A new theory concerning the manner in which the planets feed the sun—dealing with cyclones, hurricanes, and tornadoes. 1927 weather forecast. Lawrence, Kans. [1926.] 23 p. diagrs. 22 cm.

García Montes, José.

Ensayo sobre un indice o medida de un regimen pluvial en relación con la agricultura. Habana. 1934. p. 14–44. diagrs. 25½ cm. (Excerpt: Revista de la Sociedad Cubana de Ingenieros. Habana. v. 26, no. 1. Enero-Febrero 1934.)

Hänsel, Hermann.

Die Kontinentalität und die Maritinität im deutschen Klima. Leipzig. 1933. 77 p. maps, tables, diagrs. 23½ cm. (Inaug.-Diss.)

Hale, P. G.

Pressure distribution at 3,000 meters over the coast of China and adjacent seas. n. d. p. 671–673. 24 cm.

Italy. Ufficio presagi.

Riassunto mensile delle osservazioni di visibilità orizzontale e della velocità del vento al suolo e a quote secondo la forma stabilità della Commissione internazionale di navigazione aerea. Nos. 1–10. 1928–1932. Roma. 1928–1933. v. p. tables. 31 cm.

Jackson, S. P.

The climate of Johannesburg. Johannesburg. 1934. p. 19–28. tables, diagrs. 24½ cm. (The South African geogr. jnl. v. 17. Dec., 1934.)

Japan. Imperial university. Earthquake research institute.

Bulletin. Supplementary volume 1. Papers and reports on the Tsunami of 1933 on the Sanriku Coast, Japan. March, 1934. Tokyo. 250 p. plus 226 plates (part fold.) figs. 26½ cm.

Keen, B. A.

Preliminary report on the behaviour of the Ashby and Owen's evapormeters. (*In* Great Brit. Min. of agric. & fish., & bd. of agric. for Scotland. Agric. met. scheme. Rept. on agric. met. conference. 1935. p. 2-7.)

Kidson, E.

The analysis of weather charts. Sydney. n. d. 14 p. maps, chart. 25 cm. (Repr.: The American geographer, v. 2, no. 5. [Jan., 1935].)

—The importance of upper-air observations in the Pacific especially with reference to airships. n. d. p. 1977-1979. 24 cm. (A4. 48.)

Kleinschmidt, Ernst.

Handbuch der meteorologischen Instrumente und ihrer Auswertung, bearbeitet von F. Albrecht, P. Duckert, W. Grundmann, u. a. Berlin. 1935. xv, 733 p. incl. illus., tables, diagrs. 25½ cm. (Includes bibliographies.)

Link, Otto.

Die Kältewellen in Nordamerika und ihr Einbruch in das amerikanische Mittelmeergebiet. Lohr a. Main. 1934. 147 p. tables. 23 cm. (Inaug.-Diss.)

McCartney, Eugene S.

Greek and Roman weather lore of two destructive agents, hail and drought. n. p. 1934. p. 1-32. 25½ cm. (Classical weekly, v. 28, nos. 1-4. Whole nos. 745-748. Oct. 1, 8, 15 & 22, 1934.)

—Greek and Roman weather lore of the sea. n. p. 1933. p. 1-32. 25½ cm. (Classical weekly. v. 27, nos. 1-4. Whole nos. 718-721. Oct. 2, 9, 16, & 23, 1933.)

Middleton, William Edgar Knowles.

On the colours of distant objects, and the visual range of coloured objects. Ottawa. 1935. p. 127-154. tab., diagrs. 25½ cm. (From: Trans. Royal socy. of Canada. 3d ser. Sec. III, v. XXIX, 1935.)

—Visibility in meteorology; the theory and practice of the measurement of visual range. Toronto. 1935. viii, 104 p. front., diagrs. 23 cm. (Bibliography: p. 88-99.)

Pacific science congress. 5th, Victoria and Vancouver, B. C., 1933.

Proceedings. v. III. Division of physical sciences. [Toronto. 1934.] p. 1649-2549. front., illus., etc. 24 cm. At head of title: Pacific science association.

Page, Larry.

A study of the relation between lunar phenomena and daily temperatures at Des Moines. Des Moines. 1931. 6 p. tabs., diagrs. 28 cm. (Mimeographed.)

—A study of the relation between solar, lunar and planetary positions and the temperature at Des Moines. Des Moines. 1931. 5 p. figs. 28 cm. (Presented to the Iowa academy of sciences, May 2, 1931.) (Mimeographed.)

Pardé, Maurice.

Pluies et inondations remarquables en Europe. Lyon. 1930. p. 287-306. tables. 24½ cm. (Les études rhodaniennes. v. VI. 1930. no. 3. Septembre.)

Peppler, W.

Die Wissenschaftlichen Arbeiten der Drachenstation am Bodensee. n. p. n. d. 13 p. 23 cm. (Sonderdr.: 60. Hefte der Schriften des Vereines für Geschichte des Bodensees und seiner Umgebung.)

Ramanathan, K. R., & Ramdas, L. A.

The transparency of the atmosphere in the ultra-violet and a possible means of extending the solar spectrum in the region 2200-2000 Å. U. Poona. n. d. p. 103-112. tables, diagrs. 24 cm. (Symposium on molecular spectra.)

Römer, Ernst.

Vorkommen von Tromben auf dem Nordatlantischen Ozean. 1934. p. 105-111. chart (fold.), tables. 25½ cm. (Sonderdr.: "Der Seewart", Heft 3, 1934.)

Rogers, W. S.

Soil moisture and its relation to plant growth, as shown by a soil moisture meter. (*In* Great Brit. Min. of agric. & fish., & board of agric. for Scotland. Agric. met. scheme. Rept. on agric. met. conference. 1935. p. 15-19.)

Sampaio Ferraz, Joaquim de.

Meteorologia brasileira (esboço elementar de seus principaes problemas). São Paulo. [1934.] 588 p. 2 fold. tab. 18½ cm. (Biblioteca pedagogica brasileira. ser. v. Brasiliiana. vol. XXXIII.) "Bibliographia": p. [528]-572.

Sarasola, Simon.

The meteorological service of the Republic of Colombia. n. d. 3 p. 25 cm.

Sears, Paul Bigelow.

Deserts on the march. Norman [Okla.] 1935. 231 p. illus. 20 cm. 1st ed.

Talman, Charles Fitzhugh.

Big winds and little breezes. N. Y. 1934. p. 29-32; 94; 96. ill. 30 cm. (Yachting. v. 55. no. 3. March, 1934.)

U. S. Superintendent of documents.

Numerical lists and schedule of volumes of the reports and documents of the 73d Congress. 1933/34. Washington. 1934. 23 cm.

U. S. War dept. Chief signal officer.

Meteorological message for the artillery. Wash. 1934. 102 p. chart (fold.), tables. 23½ cm. (Technical regulations. No. 1236-I.)

Vidal de La Blache, Paul Marie Joseph.

Géographie universelle. Paris. 1927 . . . illus., plates, maps (part. double), diagrs. 29 cm. ("Bibliographie" at end of each chapter.) Tome 13. Amérique septentrionale, par Henri Baulig . . . 1. partie. Généralités—Canada. 1935.

Walker, Gilbert T.

Seasonal weather and its prediction. n. p. n. d. p. 25-44. figs. 22½ cm. (Repr.: Brit. assn. adv. sci. Rept. 1933. Lond.)

Wellington, J. H.

Thermal regions in Natal. Johannesburg. 1934. p. 38-41. diagr. 24½ cm. (South African geogr. jnl. v. 17. Dec., 1934.)

Werther, Rudolf.

Die Kalahari. Leipz. 1935. p. 35-95. ill., 1 pl. 30 cm. (Wissenschaftliche Veröffentlichungen des Museums für Länderkunde zu Leipzig. Neue Folge 3. 1935.)

Das Wetter zur Zeit der Beobachtung. (Übersetzung aus der norwegischen "Anleitung zur Anstellung meteorologischer Beobachtungen", Auflage 1930.) n. p. n. d. 14 p. tables. 30 cm.**Yarnell, David Leroy.**

Rainfall intensity-frequency data. Wash. 1935. 68 p. map, charts. 23 cm. (U. S. Dept. of agriculture. Miscellaneous publication no. 204.) Contribution from the Bureau of agricultural engineering.